Vol. 3, No. 2

REAL ESTATE OUTLOOK

February 1990

A Monthly Forecast for the Economy and Real Estate

FORECAST SUMMARY

- The U.S. Department of Commerce estimates that the economy continued to grow in the fourth quarter, but at the very slow inflation-adjusted annual rate of 0.5 percent. A silver lining in the GNP report was that the slower growth has helped cool the rate of inflation: the implicit price deflator, a broad index of inflation in the economy, rose at only a 3.5 percent annual rate.

- However, prices at the producer level surged 1.8 percent in January, equivalent to an annual rate of 23.9 percent. This was the largest monthly gain in fifteen years. But after adjustments for large increases in food and energy prices, the increase in January producer prices was a scant 0.1 percent, or 1.2 percent at an annual rate.

- Housing starts dropped 8.0% in December to a seasonally adjusted annual rate of 1.235 million units. The December 1989 pace was 21.7% below the December 1988 annual rate of 1.577 million units. Starts of single-family units during December 1989 fell to an annual rate of 904 thousand units, down 20.8% from December 1988.

- Sales of new single-family homes fell back in December to an annual rate of 629 thousand units, 9.6 percent below their November pace of 696 thousand units. New home sales also lagged 6.0 percent behind the December 1988 annual sales rate of 669 thousand units.

- Sales of existing single-family homes slipped 1.1 percent in December to an annual rate of 3.55 million homes. The December 1989 pace was 9.4 percent slower than the December 1988 annual rate of 3.92 million units. During all of 1989, 3.43 million existing single-family homes were sold.

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The Beasts of Winter:
Economic Commentary

by
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Bears are supposed to hibernate during the winter. Not this year. The financial press has kept up an incessant mewl of pessimistic drivel that has compounded the already significant disorder of our financial system. Hey, folks, we all know that when the weather turns exceptionally cold (c.f. December 1989), produce freezes and oil consumption rises. Markets (and middlemen) being what they are, prices will then rise. And we all know that the arcane way public numbers are reported (a.k.a. seasonally adjusted annual rates) ensure that December and January figures are usually well out of line with reality. Yet increases in the rate of inflation are taken as signs that the economy is expanding again and used as a pretext for rising interest rates.

This anomaly can be explained by two reasons. First, it pays to be pessimistic: if you're right, you gain great respect; if you're wrong, everyone is too happy to remember your prediction. Being optimistic is lose-lose, for the opposite reasons. Thus many economists and financial writers have enjoyed comfortable careers imitating Joe Btfsplk, the character in Li'l Abner who lived under a black cloud. Second, financial market operators are not brain surgeons. Read Liar's Poker (an engrossing though badly written tale of Salomon Brothers) and you'll gain appreciation for how the luck of the stupid can move markets. Stock and bond traders are in a business that thrives on chaos, and it is in their interest to perpetrate financial uncertainty.

Real estate has also been scarred by the claw of the bear. It seems that a couple of Harvard professors (pay attention to the geography; it speaks volumes) wrote a paper that extends two data series into the future and predicts a continual and universal decline of housing values during the Nineties. This prompted articles in Barrons, a notorious financial tabloid, and the Wall Street Journal (oh, how the mighty have fallen!) proclaiming the death of housing. With these leads, the Eastern media was in full cry. And, of course, since northeastern markets are soft, the whole country must be suffering.

How do we answer these claims? Clearly, direct refutation is useless, since the story appears on page one and the rebuttal among the obituaries. Well, let's look at the reality.

1.Housing markets are local markets. The kinds of value collapse implied by these stories requires a national depression, an event that seems quite remote. Moreover, it implies that all homeowners will default on their mortgages, and live in their cars. Barring these, housing markets will prosper as the local economy prospers, and weaken when the local economy does. The extreme example of this during the Eighties is Houston. It also shows that.....

2.Housing markets swing like pendulums. The psychology of buying and selling real estate is such that housing markets tend to extremes. During the Eighties, New England passed through three distinct phases: a rotten market, followed by an outrageously good market, and then a soft market. Thus it has been, and thus it will be. At any time, a particular market's pendulum can be at any phase, so that.....

3.National housing numbers yield little real information. If one house fewer is sold in San Francisco, but one more is sold in Sacramento, total California sales are unaffected. But the median price will be, since home prices are generally lower in the Central Valley than in the Bay Area. This happens nationally as well: as the (less expensive) Midwest market strengthens and the Northeast flags, national figures show a weaker housing sector. But perhaps the most significant lesson of all is that.....

4.Housing is not a short-term investment. To a great extent, press commentary has focussed on those folks who invested in real estate development hoping to turn a quick profit, and those who realize they missed the peak of their housing market even though their equity has grown significantly over the entire holding period. Housing is a highly leveraged, tax-preferred capital asset that yields shelter services. Over time, the total return on a home will be competitive with the yield on any other use of funds. We estimate that over the course of the Eighties the annual after-tax return to owner-occupied housing was 9.5 percent.

The conclusion here is that the housing sector remains strong. Demand in most parts of the country is strong and most local economies are growing. In some markets, prices will remain flat or slightly down, so that the market can correct itself. But, in the main, 1990 will look very much like 1989 - a generally good year for housing. Our analysis of the longer term suggests that demographic weakness -- the "baby bust" - will not truly affect the housing sector until very late in the decade, and even then, it's unclear as to how this group will behave.

And as far as credit market disorder is concerned: this too shall pass. Interest rates will continue to rise in February and perhaps into March, but eventually market fundamentals will prevail and rates will fall through the second and third quarters of the year. This will stimulate both economic growth and the housing sector. In a sense, it's only natural. Even birds and squirrels know that the cold of winter means that spring is on the way.

Outlook for the Economy and Real Estate

THE ECONOMIC OUTLOOK

The U.S. Department of Commerce estimates that the economy continued to grow in the fourth quarter, but at the very slow inflation-adjusted annual rate of 0.5 percent. This was the lowest estimate of real GNP growth since mid-1986, and it has raised many questions as to whether the economy will tip over into recession during the next few months. Other indicators of the economy's condition continue to give off mixed signals, contributing to the recession/slow growth debate. The GNP report indicated declines in consumption (particularly in autos, food, and clothing), slower investment spending on equipment, and the second consecutive quarterly decline in the trade balance. A hefty run up in non-farm inventories offset these declines, but higher inventory levels cloud the outlook for early 1990, as they could mean slower production in the current quarter. A silver lining in the GNP report was that the slower growth has helped cool the rate of inflation: the implicit price deflator, a broad index of inflation in the economy, rose at only a 3.5 percent annual rate.

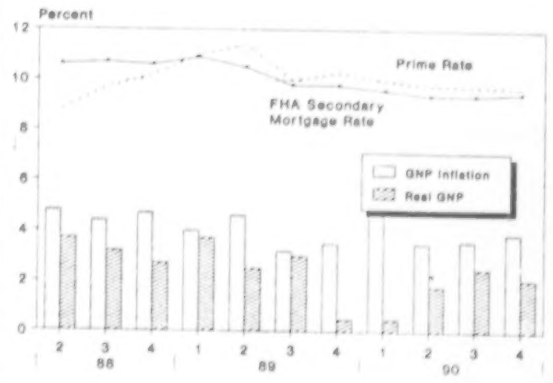
Winter Freeze Sets Fuel Prices Boiling

Shortly after the GNP report was released, another important indicator of the rate of inflation was also released, the producer price index, but it told a different story. According to that measure of inflation, prices at the producer level surged 1.8 percent in January alone, after what had already been a substantial December increase of 0.6 percent. Extended to an annual rate, the January 1.8 percent rise in the index would imply an inflation rate of 23.9 percent! This was the largest monthly gain in fifteen years, and it brought the January 1989 to January 1990 increase in the producer price index up to 5.8 percent. And for the past three months, producer prices have increased at an average annual rate of 10.5 percent. Needless to say, these figures are often the stuff that fuels inflation hysteria. However, these numbers are an aggregation of several sectors, only a few of which are currently hotbeds of inflation. Specifically, energy (up 13.6%) and food (up 2.1%) prices were solely behind the January (and December) surge in prices. In fact, the increase in January producer prices, excluding the energy and food components, was a scant 0.1 percent, or 1.2 percent at an annual rate. Even after adjusting for sweetened auto rebates, which pulled down producer prices, the index advanced at about a 4.0 percent annual rate -- virtually unchanged from a year ago.

Leading Indicators Hold Promise

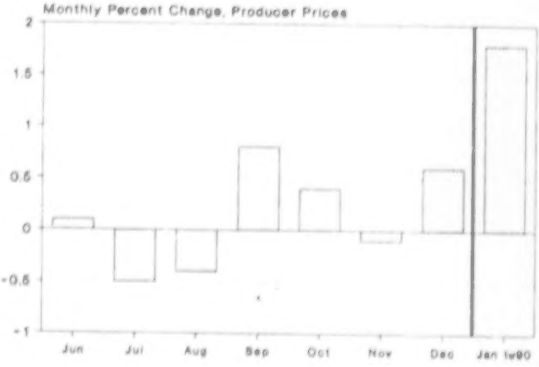
The index of leading indicators rose a strong 0.8% in December, marking its biggest advance since August 1988. The gain brought the index to 0.4% above its year ago level. The index performed very differently during the two halves of 1989. In the first half, the index declined 0.8%, but it more than made up for the loss in the second half, when it rose 1.2%. Generally, the index is used to gauge the health of the economy six to nine months into the future. If so, it means that the current weakness in the economy will not be a prolonged one. This would agree with the current forecast, which projects real GNP growth to reach 1.5 percent in 1990, and 2.3 percent in 1991.

GRAPH 1: THE ECONOMIC OUTLOOK



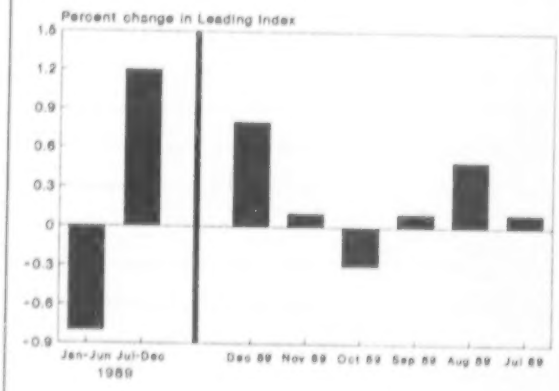
Source: Bureau of Economic Analysis; E NAR estimates

GRAPH 2: PRODUCER PRICES UP SHARPLY



Source: Bureau of Labor Statistics

GRAPH 3: LEADING INDICATORS RISE



Source: Bureau of Economic Analysis

Unemployment Steady, but Trends Developing

The civilian unemployment rate held steady at 5.3 percent in January for the eighth consecutive month. However, the household survey measures of both the labor force and the unemployed fell. When this contraction is considered along with the news that the number o people working part time for economic reasons and the number on layoff both continued to trend up, has a decidedly negative tone. On the other hand, employment as measured by establishments swelled by a surprising 275,000 -- and this came despite the tenth consecutive drop in manufacturing. Most of the gain in employment came in the construction, retail trade, and services industries. However, the increases in construction and retail trade were distorted by seasonal adjustments and a number of weather-related factors. The decline of 112,000 jobs in manufacturing employment was centered in the transportation equipment sector (which lost 93,000 jobs), as well as in fabricated metals, and rubber and plastics. All of these industries have been affected by the weakness in the auto industry.

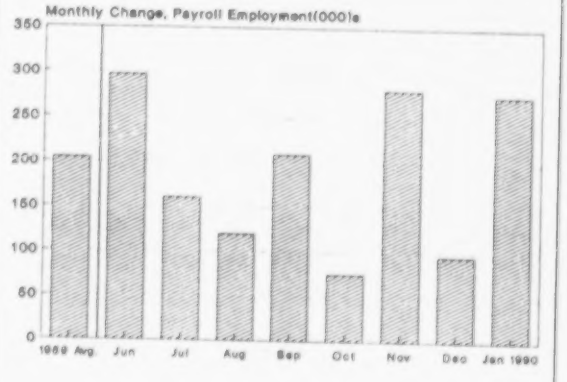
Employment Growth in the 1980's

While the monthly statistics give the most up to the minute information on the health of the economy, it always helps to put these "trends" in the proper perspective. Employment growth by industry during the 1980's shows that fewer jobs are being created in *goods-producing* industries (like construction, manufacturing and mining), while the *service-producing* industries are today's job generators. Service industries are a diverse bunch, including: general services; retail and wholesale trade; government; finance, insurance, and real estate; and transportation and utilities. Service sector employment as a share of total non-farm employment has been increasing steadily since the late 1950's, and today accounts for more than 3 of every 4 jobs. This shift has been driven by increased demand for services in the production of goods ("general services" include services actually used in the production of goods, like legal, accounting, and advertising services, etc.), rising wealth of the U.S. population, relative price adjustments between goods and services industries, as well as a shift in labor-force demographics. Contrary to what some critics say, service sector job growth is not a sign of economic stagnation, but rather of a wealthy economy able to produce the extra services it demands.

Interest Rates Go International

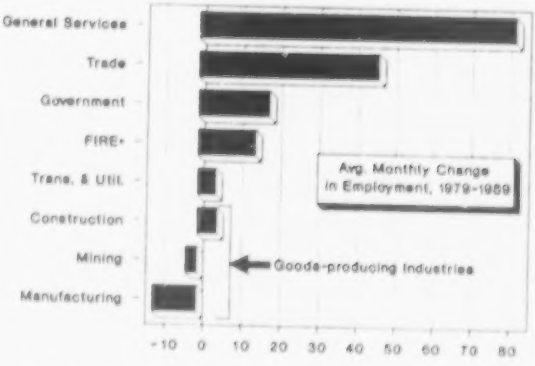
For several years now, we have heard of the increasing internationalization of the world's financial markets. The true meaning of this phrase hit home last week when the U.S. Treasury held its quarterly refunding to raise money to pay for the budget deficit. In advance of the auction, bond market players typically try to drive the prices of these securities down (and yields up). This time, there was concern over the slim spread between yields on U.S. and other international instruments. In the end, Japanese investors purchased many of the 3- and 10-year notes, but took less than their usual share of the long-term bond. After the refunding operation, yields softened. But, developments in Eastern Europe and concerns over the U.S. economy suggest continued volatility in rates.

GRAPH 4: EMPLOYMENT STILL RISING



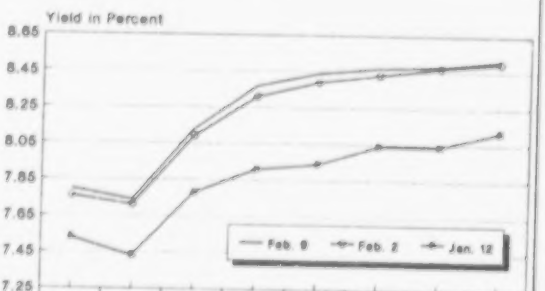
Source: Bureau of Labor Statistics

GRAPH 5: EMPLOYMENT GROWTH IN THE 80's



Source: Bureau of Labor Statistics

GRAPH 6: QUARTERLY AUCTION RAISES YIELDS



	3 mo.	6 mo.	1 yr.	2 yr.	5 yr.	7 yr.	10 yr.	30 yr.
Feb. 9	7.8	7.74	8.13	8.37	8.44	8.47	8.48	8.51
Feb. 2	7.76	7.71	8.09	8.31	8.39	8.43	8.47	8.5
Jan. 12	7.53	7.43	7.78	7.91	7.94	8.04	8.04	8.12

Source: Federal Reserve

HOUSING STARTS

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

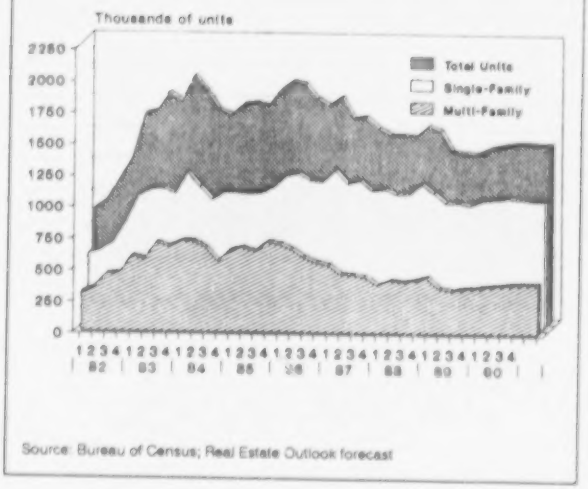
	Total	S-F	2-4	5 and up
Dec 1989	1235	904	53	278
Nov 1989	1342	1003	47	292
Oct 1989	1423	1023	60	340
Sep 1989	1264	971	57	236
Aug 1989	1329	990	56	283
Dec 1988	1577	1141	65	371
Dec 1989 Changes From (%):				
Nov 1989	-8.0	-9.9	12.8	-4.8
Dec 1988	-21.7	-20.8	-18.5	-25.1

REGIONAL DATA

	Northeast	Midwest	South	West
Dec 1989	138	268	439	390
Nov 1989	180	297	488	377
Oct 1989	173	285	567	398
Sep 1989	161	248	486	369
Aug 1989	140	236	563	390
Dec 1988	201	343	609	424
Dec 1989 Changes From (%):				
Nov 1989	-23.3	-9.8	-10.0	3.4
Dec 1988	-31.3	-21.9	-27.9	-8.0

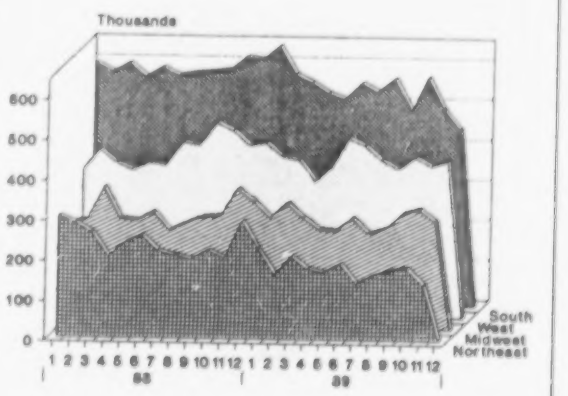
Source: Bureau of the Census; Construction Reports, Series C20

GRAPH 7: HOUSING STARTS



Source: Bureau of Census; Real Estate Outlook forecast

GRAPH 8: HOUSING STARTS BY REGION



Source: Bureau of Census

Starts of privately owned units dropped 8.0% in December to a seasonally adjusted annual rate of 1.235 million units. The December 1989 pace was 21.7% below the December 1988 annual rate of 1.577 million units. Starts of single-family units during December 1989 fell to an annual rate of 904 thousand units, down 9.9% from their November 1989 annual rate of 1.003 million units, and 20.8% below their December 1988 annual rate. Starts of small multi-family structures (those having only 2-4 units) rose to an annual rate of 53 thousand units in December, 12.8% above the November 1989 pace of 47 thousand units, but down 18.5% from the December 1988 annual rate of 65 thousand units. Starts of large multi-family structures (5 or more units) slowed to an annual rate of 278 thousand units, down 4.8% from November 1989, and off 25.1% from December 1988.

Only the West region recorded an increase in total December starts activity, where starts inched up 3.4% to an annual rate of 390 thousand units, but even there, housing starts were 8.0% below their December 1988 pace of 424 thousand units. The Northeast suffered a decline of 23.3% to a December annual rate of 138 thousand, 31.3% below the December 1988 pace. In the South, starts slid 10.0% in December to an annual rate of 439 thousand units, and were 27.9% below their December 1988 pace of 609 thousand units. In the Midwest, starts fell 9.8% in December to 268 thousand units, and were down 21.9% from their December 1988 annual rate.

NEW HOME SALES

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

Dec 1989	629	May 1989	653
Nov 1989	696	Apr 1989	607
Oct 1989	637	Mar 1989	555
Sep 1989	640	Feb 1989	621
Aug 1989	723	Jan 1989	700
Jul 1989	738	Dec 1988	669
Jun 1989	647		

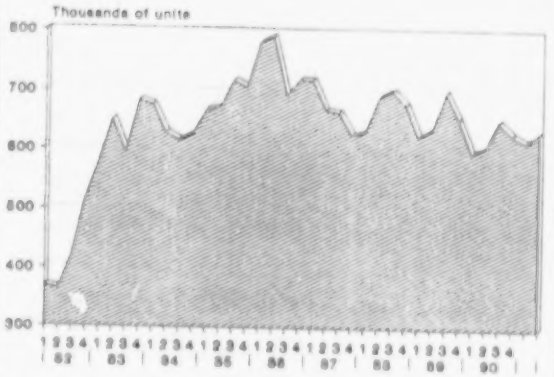
Dec 1989 Changes From:		Annual Totals:	
Nov 1989	-9.6	1989	650
Dec 1988	-6.0	1988	676

REGIONAL DATA

	Northeast	Midwest	South	West
Dec 1989	105	91	243	190
Nov 1989	101	127	259	209
Oct 1989	90	104	273	170
Sep 1989	62	103	261	214
Aug 1989	90	101	294	239
Jul 1989	99	127	282	229
Dec 1988	109	94	263	204
1989	89	103	259	199
1988	101	97	276	202
Dec 1989 Changes From:				
Nov 1989	4.0	-28.3	-6.2	-9.1
Dec 1988	-3.7	-3.2	-7.6	-6.9

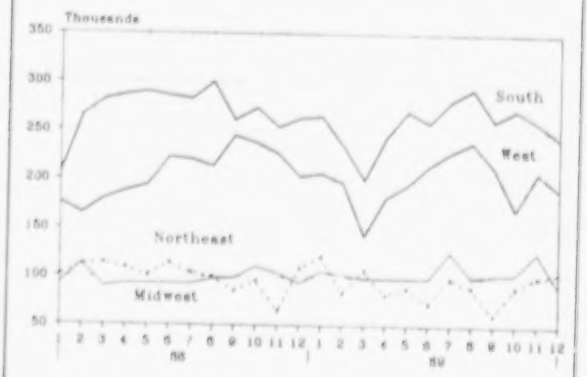
Source: Bureau of the Census; Construction Reports, Series C25

GRAPH 9: NEW HOME SALES



Source: Bureau of Census; Real Estate Outlook forecast

GRAPH 10: NEW HOME SALES BY REGION



Source: Bureau of Census

After advancing with surprising strength in November, sales of new single-family homes fell back in December to an annual rate of 629 thousand units, 9.6 percent below their November pace of 696 thousand units. New home sales also lagged 6.0 percent behind the December 1988 annual sales rate of 669 thousand units. The weaker December sales figures dropped the 1989 annual total for new single-family home sales to 650 thousand homes, a decline of 3.8 percent from the 1988 annual sales total of 676 thousand homes.

Only the Northeast region recorded an advance in new home sales in December, perhaps related to stronger starts activity in the Northeast during the September through November period. Sales of these new homes rose 4.0 percent during December to an annual rate of 105 thousand units, but remained 3.7 percent below their December 1988 pace of 109 thousand units. In the Midwest, new home sales plummeted 28.3% to an annual rate of 91 thousand units, but were only 3.2 % below their December 1988 sales pace of 94 thousand units. In the South, new home sales fell back modestly to an annual rate of 243 thousand units, 6.2 percent below the November pace of 259 thousand units, and 7.6 percent below the December 1988 pace of 263 thousand units. New home sales in the West region slid to an annual rate of 190 thousand units, down 9.1 percent from the November sales pace of 209 thousand units. Sales in the West were down 6.9 percent from their December 1988 annual rate.

EXISTING SINGLE-FAMILY HOME SALES

(Seasonally Adjusted Annual Rates, in Thousands)

NATIONAL DATA

Dec	1989	3550	May	1989	3210
Nov	1989	3590	Apr	1989	3400
Oct	1989	3480	Mar	1989	3400
Sep	1989	3520	Feb	1989	3480
Aug	1989	3480	Jan	1989	3550
Jul	1989	3330	Dec	1988	3920
Jun	1989	3360			

Dec 1989 Changes From (%):		Annual Totals:	
Nov 1989	-1.1	1989	3430
Dec 1988	-9.4	1988	3594

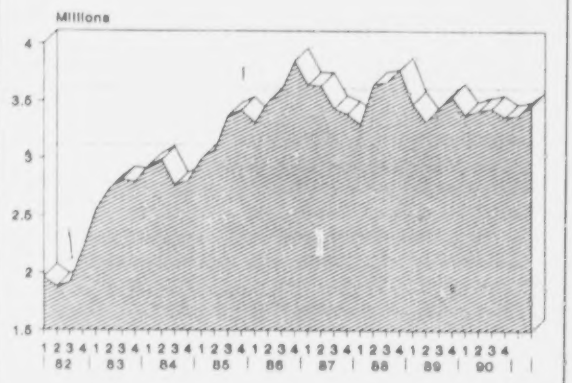
REGIONAL DATA

		Northeast	Midwest	South	West
Dec	1989	570	990	1380	600
Nov	1989	590	960	1430	640
Oct	1989	580	990	1300	620
Sep	1989	590	990	1340	590
Aug	1989	590	980	1350	550
Jul	1989	550	910	1300	570
Dec	1988	700	1010	1500	700
	1989	585	926	1311	605
	1988	673	929	1350	642

Dec 1989 Changes From (%):				
Nov 1989	-3.4	3.1	-3.5	-6.3
Dec 1988	-18.6	-2.0	-8.0	-14.3

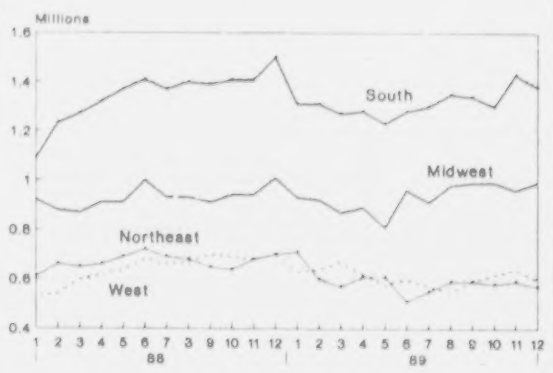
Source: NATIONAL ASSOCIATION OF REALTORS® Economics and Research Division

GRAPH 11: EXISTING HOME SALES



Source: NAR Economics & Research; Real Estate Outlook forecast

GRAPH 12: EXISTING HOME SALES BY REGION



Source: NAR Economics & Research

While falling slightly in December, sales of existing single-family homes finished 1989 in a strong fashion, recording an average annual rate in the fourth quarter of 3.54 million units. The December pause amounted to a 1.1 percent decline from the November annual rate of 3.59 million units to 3.55 million in December. The December 1989 pace, however, was 9.4 percent slower than the December 1988 annual rate of 3.92 million units. During all of 1989, 3.43 million existing single-family homes were sold. This marked a 4.6 percent decline from the 1988 annual sales total of 3.594 million homes.

Existing home sales rose in the Midwest, but fell in every other region during December. In the Midwest, existing homes were sold at an annual rate of 990 thousand units in December, 3.1 percent faster than the November sales pace of 960 thousand homes. In the Northeast, existing home sales slipped to an annual rate of 570 thousand units in December, 3.4 percent below the November annual rate of 590 thousand units, and 18.6 percent below the December 1988 annual rate of 700 thousand units. In the South, the annual rate of existing home sales dipped 3.5 percent in December to an annual rate of 1.38 million units, and were down 8.0 percent from their December 1988 annual rate of 1.5 million units. In the West, existing home sales fell 6.3 percent in December to an annual rate of 600 thousand units, and were 14.3 percent below the 700 thousand unit sales pace set in December 1988.

SINGLE-FAMILY HOME PRICES

(In Dollars)

NATIONAL DATA

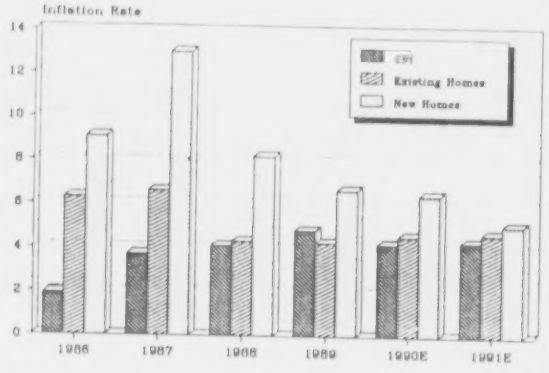
	Median		Average	
	Existing	New	Existing	New
Dec 1989	92,500	130,100	117,000	159,800
Nov 1989	93,200	125,000	118,300	152,100
Oct 1989	92,600	123,000	117,200	147,500
Sep 1989	94,300	120,000	118,400	151,100
Aug 1989	94,800	122,900	120,800	158,600
Dec 1988	88,700	121,000	112,000	147,700
1989	93,100	120,000	118,100	149,300
1988	89,300	112,500	112,800	138,300
Dec 1989 Changes From (%):				
Nov 1989	-0.8	4.1	-1.1	5.1
Dec 1988	4.3	7.5	4.5	8.2

REGIONAL DATA

	Northeast	Midwest	South	West
Dec 1989	143,100	72,100	83,200	135,300
Nov 1989	145,700	71,400	82,400	147,100
Oct 1989	143,200	71,600	83,600	142,300
Sep 1989	145,700	72,200	84,400	147,600
Aug 1989	149,000	71,900	86,100	147,500
Dec 1988	143,000	67,700	78,200	128,700
1989	145,200	71,200	84,500	139,900
1988	143,000	68,400	82,200	124,900
Dec 1989 Changes From (%):				
Nov 1989	-1.8	1.0	1.0	-8.0
Dec 1988	0.1	6.5	6.4	5.1

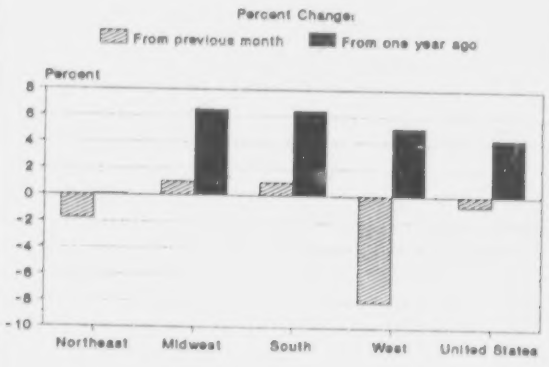
Source: NATIONAL ASSOCIATION OF REALTORS®
Economics and Research Division

GRAPH 13: HOME PRICES



Source: Bureau of Census, E Real Estate Outlook forecast

GRAPH 14: HOME PRICES BY REGION



Source: NAR Economics & Research; Real Estate Outlook forecast

The median sales price of an existing single-family home sold during December was $92,500, a decline of $700 (or 0.8 percent) from the November median price of $93,200. However, the median price was 4.3 percent above the December 1988 median price. In addition, the median price of an existing home sold during 1989 was $93,100, which means that the median price for an existing home rose 4.3 percent from the 1988 median price of $89,300.

In the Northeast, the median price of an existing single-family home rose 0.1 percent from December 1988 to December 1989. In the Midwest and South, the median price rose 6.5 and 6.4 percent, respectively, during the same period. In the West, the median price of an existing single-family home rose 5.1 percent.

The median price of a new single-family home sold during December was $130,100, an increase of $5,100 (or 4.1 percent) from the November median price of $125,000. The December median price was $9,100 (or 7.5 percent) above the December 1988 median price of $121,000.

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TAX REFORM AMIDST CHANGING DEMOGRAPHICS:
Prospects For Residential Rental Investment

The effect of tax reform on real estate investment is the subject of continual controversy. Indeed, housing analysts constructed models to gauge the "damage" which would be inflicted even before the Tax Reform Act of 1986 (TRA 1986) actually passed. While opinions differ about the magnitude of the effects of TRA 1986 (and the subsequent modifications in 1987 and 1988), the general consensus of forecasters was that different types of real estate would fare differently and that most of the tax impacts on residential and commercial rental property investment would be "onerous" to individual investors and tax shelter syndicates.

Determining the profitability of rental housing investment by looking through the lens of TRA 1986 gives only a partial picture. The demographic trends driving the demand for rental housing need to be brought into focus, as well. Towards that end, the plan of the discussion is as follows. First, we will review the provisions considered to have the greatest impact on investment in residential rental property. Second, we will look at the "estimated" impacts of TRA 1986 on after-tax equity returns, rents and market values of residential rental property. Third, we will discuss the partial equilibrium (project) models for estimating these impacts. Furthermore, we will examine some demographic and market factors; that is, factors other than tax affecting the feasibility of investment in residential rental property.

The Real Estate Provisions of TRA 1986

TRA 1986 was quite far-reaching in its reform of a great many aspects of economic and business activity. In particular, certain titles and sections overhauled the taxation of investment in residential rental property.

o Lower Individual Marginal Tax Rates

TRA 1986 replaces the fourteen bracket tax rate schedule for individuals with four rates: 15, 28, 33, and 28 percent. The 33 percent tax rate is the 28 percent rate with a 5 percent surcharge; the new rates will be adjusted annually for inflation. These tax rate reductions will affect all income, including rents. This will provide incentive to investors in properties which are not experiencing net losses.

o Elimination of Accelerated Cost Recovery System

Before the Economic Recovery Tax Act of 1981 (ERTA), there was no established "economic" life of a residential rental property; a "justifiable" life such as 30 to 40 years had to be used for depreciation purposes. The depreciation method was straight-line. Under straight-line, equal depreciation expenses are taken for each year of the property's life.

To offset the prevailing high inflation, ERTA's Accelerated Cost Recovery System (ACRS) sharply shortened tax depreciation lives for residential rental property to 15 years. Under ACRS, the investor was allowed to use the 175% declining balance method for depreciation. Unlike straight-line, the ACRS depreciation expense changes each year and is largest in the earlier years. As inflation subsided, the depreciable life for residential real estate was lengthened to 19 years.

Under TRA 1986, residential rental property is depreciable over 27.5 years. As prior to ERTA, the depreciation method is straight-line. This provides a disincentive to investors because they cannot "recover" the cost of their investment as quickly. Therefore, the present value of the depreciation deduction is reduced.

o Repeal of Exclusion for Long-term Capital Gains of Individuals and 28-Percent Capital Gains Rate for Taxpayers other than Corporations

Before TRA 1986, 60 percent of the gain on sale of a capital asset held for more than six months was exempt from taxation; 40 percent of the gain was taxable at the individual's marginal tax rate. After TRA 1986, capital gains on assets not sold before January 1, 1987 are fully taxable at the taxpayer's marginal tax rate.

Additionally, before TRA 1986, the maximum effective tax rate on capital gains was 20 percent (50% maximum marginal tax rate x 40% of gain). After TRA 1986, the maximum effective long-term capital gains rate for taxpayers other than corporations is 28 percent (28% maximum marginal tax rate x 100% of gain). For those very high income taxpayers with income subject to the surcharge, the maximum rate is 33 percent.

o Passive Activity Losses and Credits Limited

Prior to TRA 1986, there were no passive activity loss limitations. Under TRA 1986, aggregate losses in a given year from "passive" activities, including residential rental property, are deductible only up to the amount of aggregate income from all passive activities from the same year. Disallowed losses, called suspended losses, may be carried forward indefinitely to offset passive income in future years. Upon sale of a passive activity, all suspended losses may be used immediately to offset passive income, as well as earned and portfolio income.

There is an exception to this for rental real estate activities, all of which are considered passive. That is, $25,000 of losses from rental real estate are deductible against non-passive income, such as wages and salaries,

if the investor "actively participated" in the management of the property. This exception is gradually phased out for taxpayers with adjusted gross incomes exceeding $100,000, such that taxpayers with adjusted gross incomes above $150,000 are not eligible for any portion of the $25,000 offset.

o **Capitalization and Inclusion in Inventory Costs of Certain Expenses**

Prior to TRA 1986, an investor could amortize construction period interest and taxes (CPIT) over 10 years. Under TRA 1986, these costs must be added to the depreciable basis of the residential rental property and depreciated (straight-line) over the 27.5 year life. This means that an investor cannot recover CPIT as rapidly. Expressed differently, the present value of this deduction is reduced, thereby providing a disincentive to invest.

Analyses of Theoretical Market Responses to TRA 1986

Most analysts have agreed that, before the market adjusts, the tax reform provisions would reduce investors' after-tax returns on residential rental property investments. The market has been expected to adjust to the decline in after-tax returns in two ways. In the short run, residential rental property values should decline; in the longer run, rents are expected to increase to compensate equity investors for reductions in tax benefits and restore their pre-TRA 1986 required yield on equity. It should be noted here that if rents adjusted instantaneously, there would be no decline in property value.

Many analysts estimate responses of after-tax yield, market value and rents based on two assumptions about the pre-TRA marginal tax rate of the individual investor -- 45 and 52 percent -- and several holding periods such as 8- and 18-years. Additionally, most have made estimates assuming no decline in interest rates as well as a TRA 1986-induced 100 - 150 basis point decline. The reason for the latter is that by lowering demand for each type of capital asset, TRA 1986 was expected to cause interest rates to decline. Indeed, this has already occurred; however, it is not now statistically possible to determine how much of this decline was due to TRA 1986 or other economic and monetary factors. Finally, by replacing almost-certain tax benefits with less certain rental income, TRA 1986 has increased the "riskiness" of residential rental property investment. Therefore, many analysts have recognized in their modelling that investors will demand higher rates of return than before TRA 1986. Let us take a closer look at the three parameters and TRA 1986's estimated impacts on them.

o **After-Tax Yields on Residential Investment Property**

Throughout the 1970s, the combined effects of tax shelter, leveraging, low real interest rates and anticipated appreciation produced an excellent after-tax rate of return on equity in residential rental property. This rate of return occurred despite lagging rents. Downs estimates that the real after-tax yield on equity averaged about 7.3 percent a year for 1970 through 1979.[1]

By 1980, dramatic increases in real interest rates and declines in expected appreciation would have substantially lowered the rate of return had not the tax benefits of ERTA more than compensated. Rosen estimated a 10.1 percent after-tax internal rate of return for apartment buildings (assuming a 10-year holding period) before ACRS of ERTA, but a 14.1 percent return under the ACRS.[2]

While there is general consensus that TRA 1986 will reduce after-tax rates of return, estimates of the magnitude of the reduction vary slightly as a result of a wide range of assumptions about holding periods for the investment, investor's marginal tax rate, etc. For example, Rosen estimated that TRA 1986 would reduce the after-tax internal return on apartments by about 700 to 800 basis points from 14.1 percent (under ACRS) to 6.3 percent.[3] Brueggeman and Thibodeau estimated that, with exception of the depreciation of CPIT and the elimination of the investment tax credit which have minimal impact, the cumulative effect of the other provisions would result in a 300 to 500 basis point decline in the after-tax yield on residential rental property from 11.5 percent to about 6.5-8.5 percent, depending on the holding period.[4]

o **Market Values**

The pricing of residential rental property is similar to the pricing of a bond. "When bonds are earning a below-market coupon rate, they sell at a discount. The more the coupon is below market and the longer the bonds are expected to earn below market coupon, the lower is the market value relative to par."[5] The same applies to the market value (the price an investor is willing to pay) for residential rental property. That is, the value of the property depends on its yield which in turn depends on the rent, among other factors.

Hendershott's estimates of market value responses consider the importance of the "rental adjustment process." This process depends on both the excess supply (vacancies) in an area and the growth rate in the area. That is, in markets in which excess supply was expected to be eliminated rather quickly, e.g., fast growth areas in equilibrium (no excess supply) before TRA 1986, rents should adjust rather quickly. In such areas, market values would be affected minimally. In markets in which excess supply was expected to be eliminated rather slowly, e.g., no growth areas in disequilibrium before TRA 1986, rents should adjust more slowly. In such areas, market values would decline more. Based on his estimated 10 percent rent increase, Hendershott's estimates of TRA-induced declines in market values of residential rental properties ranged from one percent in a fast growth area in equilibrium before TRA 1986 to seven percent for a

no-growth area having 10 percent excess capacity before TRA 1986.[6] Brueggeman and Thibodeau estimated expected declines in property values based on 2 holding periods -- 8 and 18 years -- and 2 interest rate assumptions -- no decline and a TRA 1986-induced 150 basis point decline. Their estimates ranged from 16.39 percent (assuming a 18-year holding period and a 150 basis point interest rate decline) to 28.02 percent (for a 8-year holding period and no interest rate decline).[7]

Evidence from a select survey of the nation's largest buyers and sellers of apartment buildings show that apartment building prices did decline (nationally) from the end of 1985 to mid-1986 by about almost seven percent and again from mid- to end of year 1986 by almost three percent. However, more recent data shows a reverse in this trend; i.e., the 2-year (1987-1988) price appreciation rate of apartment buildings was 4.7 percent, higher than the 3.0 percent experienced by all commercial properties combined.[8]

o **Rents**

While market values of residential rental properties were expected to and, in fact, did decline nationally even before TRA 1986 went into effect, rents are theorized to eventually rise to a new equilibrium level. (The equilibrium rent is that at which the demand for and supply of rental housing are equal.) Because rents are determined by supply and demand for rental housing and supply is somewhat inflexible in the short run, rent changes are a longer run adjustment. Also, leases and local laws may constrain the ability of rents to rise immediately. The amount of time necessary for rents to adjust to their new equilibrium level depends on the local rental conditions, e.g., vacancy rate and economic growth of an area. The higher the vacancy rates in rental housing in the area, reflecting excess supply, and the slower the growth in the area, the longer the expected time period before rents adjust. Hendershott suggested that a reasonable guess of the time period before rents rose to their new equilibrium levels would be about three to ten years after TRA 1986 was enacted.[9]

Rent increase estimates ranged from six to 35 percent, depending on assumptions about the investor and the property. Accounting for the probable increase in the rate of return required by investors after TRA 1986, Hendershott, Follain and Ling estimated that for the pre-TRA 45 percent tax rate investor, the required increase is 19 percent; for the 52 percent tax rate investor, the required increase is 33 percent. With a 100 basis point decline in interest rates (and consequently a lower increase in the required after-tax rate of return), they estimated rent increases of 11 and 24 percent for the pre-TRA 45 and 52 percent marginal investor, respectively.[10] Believing (1) the marginal investor before TRA 1986 to have been in the 45 percent tax bracket, (2) that an interest rate decline would result from TRA 1986 and (3) that investors would demand increases in their required returns to offset the increased "riskiness" of residential rental property investment, Hendershott, Follain and Ling estimated a "most likely" rent increase of 10 to 15 percent.[11] Agreeing with (1) through (3), Pellechio estimated a "most likely" rent increase for residential rental property of 7.3 percent.[12]

In a study conducted for the Congressional Research Service, Gravelle estimated the effects of TRA 1986 separately for each type of investor -- corporation, individual, non-tax shelter partnership, tax shelter and "other." Unlike previous analyses in which the individual investor represented the marginal investor, or source of new investment, Gravelle suggests that the corporation is the "theoretically correct" marginal investor.[13] This stems from standard microeconomic theory in which the high cost investor represents the marginal investor. Assuming that the basic technology of operating rental housing is the same for each type of investor, the highest cost investor, and thus the marginal investor, would be the one which bears the heaviest tax -- the corporation. With a 100 basis point interest rate decline, her results for the theoretical corporate investor suggest basically no effect of TRA 1986 on residential rents. Except for those based on tax shelter investors, Gravelle's rent estimates are generally lower than those of other analysts.

While insufficient time has passed to corroborate the estimates of rent changes in most markets, Table 1 shows what has been happening to apartment rents (nationally) since the 1970s. Between 1982 and 1986, rents rose by an average of two percent per year faster than overall inflation; but since then they have remained relatively flat.

TABLE 1

GROWTH IN NOMINAL AND REAL RESIDENTIAL RENTS, 1970-88
(Year-to-Year Percentage Change)

	Nominal Rents*	Real Rents**
1970	4.1%	-1.8%
1971	4.6	0.4
1972	3.5	0.2
1973	4.3	-1.9
1974	5.0	-6.0
1975	5.2%	-3.9%
1976	5.4	-0.3
1977	6.0	-0.5
1978	6.9	-0.8
1979	7.3	-4.0
1980	8.8%	-4.7%
1981	8.7	-1.7
1982	7.6	1.5
1983	5.8	2.5
1984	5.2	1.0
1985	6.1	2.6
1986	5.8%	3.9%
1987	4.1	0.5
1988	3.8	0.3

Source: U.S. Bureau of Labor Statistics.

* This is the percent change over the previous year in the residential rent component of the Consumer Price Index (CPI-U).

** This is the difference between the percent change over the previous year in the residential rent component of the CPI-U and the percent change over the previous year in the CPI-U, all items.

Partial Equilibrium (Project) Models

Market value and rent change estimates discussed in the previous section are based on the results of partial equilibrium (project) models. The terms partial equilibrium indicate that the analysis incorporates only the factors and adjustments affecting the specific investment opportunity. They do not generally reflect overall economic or market adjustments, although certain "general equilibrium" adjustments, such as interest rate declines, can be incorporated into the models.

Partial equilibrium models are essentially spreadsheet models of the discounted cash flows for hypothetical rental projects. Given a host of input assumptions, they calculate the before-tax cash flows and tax liabilities from annual operations, and the after-tax cash proceeds from sale. After calculating these magnitudes, the models then calculate the present value of holding the property and selling it in a given year. As such, the models can be used to determine the effects of complicated tax policy changes on the market value (price that an investor is willing to pay) for a residential rental property. Alternatively, given the market value (price) of the project, the partial equilibrium models can also determine the rent necessary for the investor to achieve his required return on equity.

Limitations of Partial Equilibrium Analyses

The partial equilibrium model provides a useful tool for studying behavioral responses of investors in individual projects to complicated tax policy changes; however, estimates from these models should be interpreted with caution.[14] First, it is apparent from the wide range of value and rent change estimates that the model results are sensitive to assumptions about the investor's tax rate, future interest rates, holding periods for the investment, etc.

Also, the inference of market rent and value responses from partial equilibrium model results is questionable. This is because the necessary assumptions tend to bias rent increase projections, generally in the direction of overstatement.[15] Burman, Neubig and Wilson point out a particularly troubling assumption -- that there exists a marginal investor or a representative investor whose behavior approximates that of the market. Moreover, most analyses assume that the marginal investor before TRA 1986 remains the marginal investor after TRA 1986.[16]

There are several problems with this assumption. First, Burman, Neubig and Wilson point out that the ownership of residential rental property is distributed among significant numbers of individuals in each tax bracket, as well as for corporations and governments; therefore, there is not a representative investor.

The alternative rationale that there is a class of investors which represents the marginal investor is also problematic. While traditional economic theory identifies the highest-cost investor as the marginal investor,[17] many analysts use the individual or tax shelter syndicates, neither of which was the highest-cost investor before TRA 1986 as the marginal investor. Furthermore, tax shelter syndicates account for only a small share of investors in residential rental property.[18]

Burman, Neubig and Wilson also criticize the notion that the marginal investor is the same before and after TRA 1986 on the grounds that tax policy usually involves structural, not simply marginal, change. Therefore, any modelling of tax reform should reflect a change in the marginal investor, if this is the case. For example, while the high tax bracket investor is the low cost investor before TRA 1986, after TRA 1986 this flip flops. By a small margin, the high bracket investor becomes the high cost investor and the low tax bracket investor faces the lowest cost. The result of this "shifting" of the low-cost investor to the investor in a low tax bracket will likely elicit a shift in rental property investment from tax shelter partnerships to tax-exempt and lightly taxed corporations.[19]

To sum up, the partial equilibrium model can be used most effectively to analyze a specific investment opportunity. Even then, the model results are highly sensitive to the input assumptions. For example, if an investor assumed a larger interest rate decline than actually occurred, the model-generated required rent would be lower than what he would actually need to achieve his required rate of return. The inference of market rent and value responses from partial equilibrium models suggests that there exists an investor who truly represents the market. This is suspect since the individual investors in residential rental property are well-distributed in many tax brackets. Corporations and the government invest as well.

More importantly, even if the model were capable of predicting precisely the effects of TRA 1986 on market values and rents, there are other demographic and nontax considerations upon which the feasibility of residential rental investment is also based.

Demographics and Other Nontax Considerations

Unquestionably, investment in housing is dominated in the short-run by vagaries of the economy -- inflation, unemployment, tax reform. As far as tax reform is concerned, it can be argued that housing investment is still playing out the response to the Economic Recovery Tax Act of 1981, 1984 tax legislation and subsequent changes in regulations. So with all of the uncertainty surrounding the "when" and "how long" of tax policy responses, it is prudent to return to the basic economics of housing markets when considering an investment in residential rental property.

Of the three components of investment return on rental housing - tax benefits, before-tax cash flow from operations, and the net proceeds from sale - TRA 1986 has shifted the emphasis of the decision to invest on the latter two. These components of return reflect the economic motivation behind investment and depend to some extent on the changing U.S. demographics. To

this end, let us look at some demographic and economic phenomena which affect the rental housing market. While projecting some of these demographic/economic trends may be at least as challenging as anticipating tax law changes, these nontax considerations may, ultimately, prove more important in analyzing the feasibility of investment in residential rental housing investment into the next decade and century.

o Age Distribution of the Population

The age distribution of the population has been influenced largely by the post-World War II baby boom, which some have dated from 1946 through 1964. As a consequence of the second wave of the baby boom peaking in 1957 and remaining strong through 1961, the number of people turning 25 - the prime rental group - peaked from 1982 through 1986.[20] Table 2 shows that the population aged 25 to 34 is projected to decline by 13 percent between 1986 and 2000. Table 2 also shows that another key rental group -- people 18 to 24 -- is projected to decline by 14 percent. However, mitigating this to some extent is the 22 percent increase in the population of potential renters age 65 and over.

o Nontraditional Household Types

Historically, married couple households, both with and without children, have demonstrated higher propensities to own their homes than other household types. Although their ownership rates have been growing, single-person households -- a fast growing segment of the population -- have exhibited lower propensities to own than married couple households.

Table 3 presents the distribution of households by type. While there are still many more married households, the growths from 1970 to 1980 and 1980 to 1988 for other family, single and other non-family households far surpass the growth in married households. A continued shift from households with high propensities to own to households with lower propensities to own could significantly affect the demand for rental housing.

TABLE 2

U.S. POPULATION BY AGE, 1970-2000
(Population in Thousands)

Age	Population Change 1970-85 Number	Pct. Chg.	1986P-2000P Number	Pct. Chg.
18-24	4,029	16%	-4,136	-14%
25-34	10,964	67	-5,429	-13
35-44	8,069	36	11,678	37
45-64	2,932	7	16,335	36
65+	8,423	42	6,295	22
18 and over	40,977	30	24,741	14

P U.S. Bureau of the Census projection, the Census projections from Report P-25 have been proportionately adjusted to align actual 1985 figures with projections.

Source: U.S. Bureau of the Census, Current Population Reports, Series P-25, Population Estimates and Projections, Number 952 (May 1984) and Number 985 (April 1986).

TABLE 3

HOUSEHOLDS, BY TYPE: 1960-1988
(Households in thousands)

	Married Couple	Other Family	Single	Other Non-Family
1960	39,254	5,651	6,896	999
1970	44,728	6,725	10,851	1,994
1975	46,993	8,612	13,939	3,018
1980	49,112	10,436	18,296	4,590
1985	49,826	11,485	19,250	5,275
1986	50,006	11,907	19,954	5,456
1987	50,350	12,196	20,602	5,660
1988	50,933	12,625	21,178	5,722
1987	51,537	12,954	21,128	5,566
1988	51,814	13,295	21,855	4,807
Percent Change 1970-1980	9.8	55.1	68.6	10.7 a
Percent Change 1980-1988	3.5	27.4	19.5	30.8

Source: U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 417.

o Household Mobility

Household mobility has been found to be closely correlated with the household's decision to purchase or rent a home. While much remains to be learned about this relationship, intuitively, high transactions costs associated with home ownership, e.g. closing costs, broker's fees etc., justify the decision to purchase a home only for households expecting to be able to spread those costs over a sufficiently long period of time, i.e., for households having low expected mobility.[21] That partially accounts for the difference in the 1985 mobility rates of owners and renters, 8.3 versus 37.7 percent, respectively.

U. S. mobility statistics date from 1948 when 19.9 percent of the population was estimated to have changed residences during the preceding year. Table 4 shows that the national mobility rate remained at about 20 percent until the early 1960s when it seems to have begun a steady, two-decade decline. As indicated in Table 4, the mobility rate seems to have bottomed out in 1982 - 1983 at 16.1 percent.

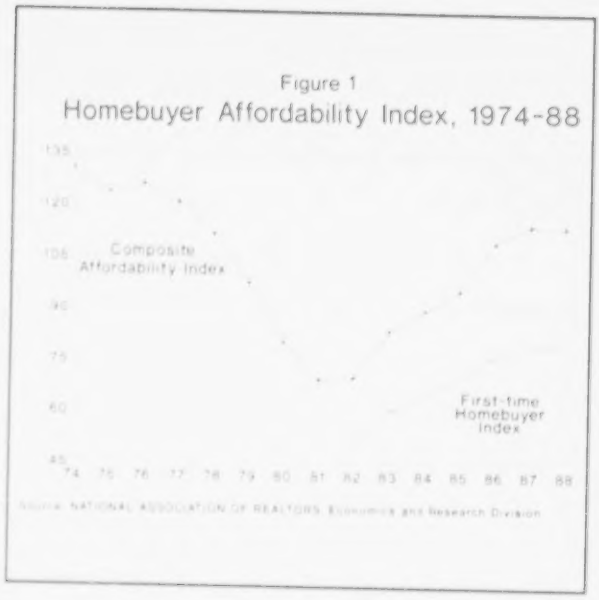
Since then, mobility seems to be trending upward. Whether this trend will continue is the source of much

speculation. But a highly mobile population may augur well for investment in rental housing.

o **Homeownership Affordability**

The affordability of homeownership is determined by many factors including household wealth and income, house prices, monthly housing expenses, mortgage interest rates, instruments and underwriting guidelines. The National Association of Realtors' Composite Affordability Index and First-Time Homebuyers' Affordability Index are two measures which track the relationship between household income and house prices. The first measures the income sufficiency of all prospective homebuyers -- first-time and repeat -- to qualify for a mortgage loan on the median-priced home; the second measures the income sufficiency of prospective first-time homebuyers to qualify for a mortgage loan on the median-priced starter home.

Figure 1 shows that, after declining steadily during the 1970s (when real home prices were escalating faster than real household incomes) and early years of the 1980s, the Affordability Index has risen steadily since 1982. In fact, 1986 was the first year since 1978 that the index was above 100, indicating that the typical family's income was just sufficient to qualify for a mortgage loan on a typical existing home. (It is



important to keep in mind that by aggregating over all housing markets, the index masks significant geographic variations in housing affordability.)

While the Composite Affordability Index has boded well for prospective homebuyers in recent years, the First-Time Homebuyer Affordability Index points out the plight of the typical young household. Although rising since 1982 (the first year of its calculation), the income of the typical first-time homebuyer remained some 22 percent below that needed to qualify for a mortgage loan on a typical starter home in 1988. This inability to meet the ongoing expenses coupled with the difficulty of saving for a downpayment, may make it necessary for some households to postpone homeownership. This postponement would tend to increase the demand for rental housing.

o **Vacancy Rates**

Substantial overbuilding, sparked by the favorable tax provisions of ERTA 1981, is partially responsible for the increasing residential rental vacancy rate between 1982 and 1987. Additionally, the increasingly mobile U.S. population may account for some of the rise in vacancy rates. With a larger proportion of households switching residences at any given time, a larger proportion of vacant units are needed to accommodate these moves.

Vacancy rates differ significantly by metropolitan areas. Even among the four Census regions, there is substantial variation with 1988 vacancy rates ranging from 4.8 percent in the Northeast to 10.2 percent in the South. For the Midwest, the vacancy rate appeared to be levelling off in 1988 at 6.9 percent and in the South, the vacancy rate, though high, actually declined this past year. While vacancy rates are more reflective of shorter term market conditions, they may take on a new significance as a result of the emphasis of TRA

1986 on the economic return rather than tax considerations of investment decisions.

There are other factors that warrant consideration in determining the future returns on investment in rental real estate. For example, do the households of declining size we've witnessed during the 1970s and 1980s have less wealth and income per household? If so, the rental market may be boosted by a large share of smaller households with fewer financial resources per household. Additionally, increased immigration may increase the need for rental housing, especially for states like California, Florida, New York, and Texas. Investors may find that in markets such as these the rents will be sufficient to meet required yields on their equity investments.

Conclusion

While TRA 1986 eliminated many of its tax benefits, rental housing remains a tax-advantaged investment. While the economic life of residential rental property has been lengthened by 8.5 years, it is still much shorter than the 30- to 40- year life before ERTA. Also, depreciation is a non-cash deduction that "active" investors with adjusted gross incomes below $100,000 can use to shelter income from wages, salaries and investments.

Since the provisions of tax reform are less burdensome to some types of investors than to others, there could be a substantial change in the composition of investors in residential rental property. The TRA 1986-induced "shifting" of the low tax bracket investor from the high-cost to low-cost investor could evoke increased interest among tax-exempt and lightly taxed entities. Also, corporations may invest more in residential rental property for several reasons. Passive activity loss limitations do not apply to corporations. Furthermore, before TRA 1986, corporate investment in equipment was favored over structures; this favoritism was eliminated under TRA 1986. Whether corporate investors will invest in similar types of rental properties remains to be seen. A long-run consequence may be a favoring of higher income residential properties and a tilt away from lower income properties.

Of more sustained importance perhaps than changes in the tax code, are the many demographic changes which affect investment in rental housing. While the overall population growth and the age profile of the population are not auspicious, households are now smaller, more mobile and the costs of homeownership are formidable for many of these households. Projections of these demographics may ultimately be more telling than ephemeral tax law changes.

by
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7.Brueggeman and Thibodeau, pp. 18-19.

8.See National Real Estate Index Special Report, (Emeryville, CA: The Liquidity Fund, July 1989).

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15.Ibid, p. 329.

16.Ibid, pp. 327-35.

17.Gravelle indicates that the corporation is the highest-cost investor, and therefore, the marginal investor.

18.Burman, Neubig and Wilson, pp. 327-35.

19.Ibid.

20.Rosen; p.2.

21.For detailed analysis, see John Simonson, Prospective First-Time Homebuyers: Salient Characteristics and Their Implications, Research Paper (Washington, D.C.: National Association of Realtors , 1989) and Daniel N. Chambers and John Simonson, "Mobility, Transaction Costs and Tenure Choice," a paper presented at the 17th Annual Midyear Meeting of the American Real Estate and Urban Economics Association, Washington, D.C. (May 30, 1989).

U.S. ECONOMIC OUTLOOK

FEBRUARY 1990

	QUARTERS								YEARS				
	ACTUAL		FORECAST						ACTUAL			FORECAST	
	89.3	89.4	90.1	90.2	90.3	90.4	91.1	91.2	1987	1988	1989	1990	1991
AGGREGATE ECONOMY													
Gross National Product (billions of dollars)	5281	5337	5405	5476	5559	5642	5734	5827	4524	4881	5233	5520	5873
% Change	6.2	4.3	5.2	5.4	6.2	6.1	6.7	6.7	6.9	7.9	7.2	5.5	6.4
% Change (w/out inflation)	3.0	0.5	0.5	1.8	2.5	2.1	2.3	2.6	3.7	4.4	2.9	1.5	2.3
Consumer Price Inflation (CPI)	2.4	4.0	5.7	3.2	3.8	4.4	4.4	4.6	3.7	4.1	4.8	4.2	4.3
GNP Inflation (GNP Deflator)	3.2	3.5	4.8	3.5	3.6	3.9	4.3	4.0	3.1	3.3	4.2	3.9	3.9
Unemployment Rate - Civilian	5.3	5.3	5.5	5.6	5.6	5.7	5.7	5.7	6.2	5.5	5.3	5.6	5.6
Civilian Employment-Household Basis (millions)	117.5	117.8	117.9	118.1	118.4	118.7	119.0	119.3	112.4	115.0	117.3	118.3	119.5
Percent change	0.7	1.0	0.5	0.6	1.0	1.0	1.0	1.3	2.6	2.3	2.0	0.8	1.1
Index of Industrial Production	142.2	142.3	142.5	142.9	143.5	144.3	145.2	146.2	129.8	137.2	141.7	143.3	146.7
Manufacturing Capacity Utilization	84.0	83.1	82.9	82.7	82.8	82.7	82.8	82.9	81.0	83.5	84.0	82.8	82.9
Domestic Auto Sales	7.9	6.2	6.7	6.7	6.7	6.8	6.9	7.0	7.1	7.5	7.1	6.7	7.0
Federal Tax Receipts (NIPA) as % of GNP	19.8	19.8	20.3	20.4	20.4	20.4	20.5	20.4	20.1	19.9	20.0	20.4	20.4
Federal Expenditures (NIPA) as % of GNP	22.5	22.8	22.8	22.7	22.6	22.5	22.6	22.4	23.7	22.9	22.9	22.7	22.4
Deficit(NIPA)	-144	-161	-135	-128	-125	-118	-122	-116	-161	-145	-149	-126	-113
as % of GNP	-2.7	-3.0	-2.5	-2.3	-2.3	-2.1	-2.1	-2.0	-3.6	-3.0	-2.9	-2.3	-1.9
REAL ESTATE MARKETS													
HOME SALES													
Total Single-family Home Sales (thousands, single-family resales plus 97 percent of single-family starts)	4408	4487	4369	4409	4444	4359	4364	4448	4647	4649	4408	4395	4397
Percent change -- year ago	-6.0	-7.9	-3.1	2.9	0.8	-2.8	-0.1	0.9	-1.3	0.0	-5.2	-0.3	0.0
Existing Single-family Home Sales (thousands)	3443	3540	3385	3420	3440	3365	3380	3465	3526	3594	3430	3403	3423
Percent change -- year ago	-6.0	-6.1	-2.7	3.0	-0.1	-4.9	-0.1	1.3	-1.1	1.9	-4.6	-0.8	0.6
Housing Starts (thousands)	1337	1333	1377	1396	1417	1418	1409	1411	1633	1494	1385	1402	1401
Percent change -- year ago	-8.8	-14.5	-9.2	3.3	6.0	6.4	2.3	1.1	-9.8	-8.5	-7.3	1.3	0.1
Single-Family Units	995	976	1014	1020	1035	1025	1014	1013	1156	1088	1008	1023	1004
Percent change -- year ago	-6.1	-14.2	-5.2	2.8	4.0	5.0	0.0	-0.7	-2.2	-5.9	-7.3	1.5	-1.9
Multi-Family Units	342	356	363	375	382	393	395	397	477	406	376	378	396
2-4 Family Units	56	53	54	56	57	58	59	59	65	59	55	56	59
Percent change -- year ago	-0.6	-18.4	-8.4	5.9	0.9	10.3	8.8	5.9	-23.0	-9.5	-5.8	1.9	4.8
5 + Family Units	285	303	308	319	325	334	336	338	412	347	320	322	337
Percent change -- year ago	-18.2	-14.6	-20.4	4.1	14.0	10.3	8.8	5.9	-24.4	-15.6	-7.7	0.3	4.8
New Single-family Home Sales (thousands)	700	654	597	607	651	629	616	633	673	676	650	621	640
HOME PRICES													
Existing Home Prices - Median $(1000)	95.3	92.8	94.1	96.2	99.5	99.6	100.4	102.3	85.6	89.3	93.1	97.4	101.9
Percent change -- year ago	5.7	6.2	5.0	4.5	4.4	7.3	6.7	6.3	5.8	4.3	4.3	4.6	4.7
New Home Prices - Median $(1000)	119.6	126.0	128.7	125.8	128.0	128.4	131.0	130.3	104.5	112.5	120.0	127.7	134.2
Percent change -- year ago	4.1	9.8	9.1	5.7	7.0	1.9	1.8	3.6	13.5	7.7	6.7	6.4	5.1
FINANCIAL MARKETS													
Long-Term Interest Rates													
30-year FRM (FHA Secondary)	10.0	9.8	10.0	9.8	9.6	9.6	9.7	9.7	10.2	10.3	10.3	9.8	9.8
1-year ARM (effective rate)	9.3	8.8	8.6	8.5	8.4	8.4	8.5	8.5	8.5	8.5	9.3	8.5	8.6
Corporate AAA Bond Rate	9.0	8.9	9.3	9.0	8.7	8.7	8.8	8.8	9.4	9.7	9.3	8.9	8.8
Government Bond Rate	8.1	7.9	8.3	8.0	7.8	7.8	7.9	7.9	8.6	9.0	8.4	8.0	7.9
Short-Term Interest Rates													
Federal Funds Rate	9.1	8.6	8.1	7.8	7.8	7.9	8.0	8.0	6.7	7.6	9.2	7.9	8.0
3-month T-Bill Rate	7.8	7.7	7.5	7.2	7.2	7.3	7.4	7.4	5.8	6.7	8.1	7.3	7.4
Prime Rate	10.7	10.5	10.0	9.8	9.8	9.8	9.8	9.7	8.2	9.3	10.0	9.8	9.7
Discount Rate	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	5.7	6.2	6.9	7.0	7.0
Value of the U.S. Dollar (Trade-Weighted Avg.)	100.5	97.3	92.7	91.5	91.6	89.8	88.7	87.8	96.9	92.8	98.5	91.4	87.9
Percent change	0.4	-12.2	-17.5	-4.9	0.1	-7.6	-4.9	-3.6	-13.6	-4.3	6.2	-7.2	-3.8

Source: Forecast produced using Laurence H. Meyer and Associates' model of the U.S. economy.
Assumptions and simulations by Dr. John Tuccillo, Dr Frederick Flick, Sean Burns and Beth Maerz.

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